

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-31-23  
Relating to Certification of New Heavy-Duty Motor Vehicle Engines

HINO MOTORS, LTD.

Pursuant to the authority vested in the Air Resources Board by Sections 43100, 43102 and 43103 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-3;

IT IS ORDERED AND RESOLVED: That the following Hino Motors, Ltd. 1991 model-year diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 8,500 pounds:

<u>Engine Family</u>	<u>Displacement Liters (Cubic Inches)</u>		<u>Exhaust Emission Control Systems (Special Features)</u>
MHM03.8FAA0	3.8	(234)	Turbocharger Charge Air Cooler
MHM06.5FAA6	6.5	(396)	Turbocharger Charge Air Cooler

Engine models and codes are listed on attachments.

The following are the certification emission standards for this engine family:

<u>Hydrocarbons gm/bhp-hr</u>	<u>Carbon Monoxide gm/bhp-hr</u>	<u>Nitrogen Oxides gm/bhp-hr</u>	<u>Particulates gm/bhp-hr</u>
1.3	15.5	5.0	0.25

The following are the certification emission values for this engine family:

<u>Engine Family</u>	<u>Hydrocarbons gm/bhp-hr</u>	<u>Carbon Monoxide gm/bhp-hr</u>	<u>Nitrogen Oxides gm/bhp-hr</u>	<u>Particulates gm/bhp-hr</u>
MHM03.8FAA0	0.4	1.3	4.2	0.19
MHM06.5FAA6	0.6	1.4	4.6	0.22

BE IT FURTHER RESOLVED: That the Executive Officer has been provided all material required to demonstrate certification compliance with the Board's emission control system warranty provisions (Health and Safety Code Section 43205.5).

HINO MOTORS, LTD.

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Engines certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this order and attachments.

Executed at El Monte, California this 4<sup>th</sup> day of February, 1991.



R. E. Summerfield  
Assistant Division Chief  
Mobile Source Division

E.O.# A-31-23  
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HEAVY-DUTY DIESEL ENGINESLHDDManufacturer HINO MOTORS, LTD. Engine Family MHM03.8FAAOLiters (CID) 3.839 (234) Engine Type I-4, 4 Stroke cycle,Emission Control Sys. & Special Features TC, CAC  
(Use abbreviations per SAE J1930 Jun88)

Engine Model (Eng. Code)	Fuel Pump Mfr. P/N	Injector Mfr. P/N	Rated HP @ RPM..	Fuel Rate @ Rated HP cc/stroke	Part. Trap/ Catalyst Mfr. P/N
W04C-TH	Nippon Denso 22010-6382	Nippon Denso 23610-1822	150 @ 2,800	0.094	N/A

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HEAVY-DUTY DIESEL ENGINESMHDDManufacturer HINO MOTORS, LTD. Engine Family MHM06-5FAA6Liters (CID) 6.485 ( 396 ) Engine Type I-6, 4 Stroke cycleEmission Control Sys. & Special Features TC, CAC  
(Use abbreviations per SAE J1930 Jun88)

Engine Model (Eng. Code)	Fuel Pump Mfr. P/N	Injector Mfr. P/N	Rated HP @ RPM ..	Fuel Rate @ Rated HP cc/stroke	Part. Trap/ Catalyst Mfr. P/N
H06C-TM	Nippon Denso 22010-6332	Nippon Denso 23610-1790	225 @ 2,500	0.107	N/A
H06C-TN	22010-6342	23610-1790	200 @ 2,500	0.094	N/A

Revisions:  
042090